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Sub 5

1. A data storage medium having an optical information carrier which comprises a spiral-wound polymer film (11, 30), the central area of the data storage medium (1) being provided with a recess (36) whose periphery (37) is formed by the innermost winding (38) of the polymer film (30).
2. The data storage medium as claimed in claim 1, characterized in that the polymer film (11) is wound in a plurality of polymer film plies (10) through which information can be read from a preselected polymer film ply (10) and, optionally, written to a preselected polymer film ply (10).
3. The data storage medium as claimed in claim 2, characterized in that there is an adhesion layer (12) between each pair of adjacent polymer film plies (10).
4. The data storage medium as claimed in claim 3, characterized in that the refractive index of the adhesion layer (12) differs only slightly from the refractive index of the polymer film (11).
5. The data storage medium as claimed in any of claims 1 to 4, characterized in that the refractive index of the polymer film (11) can be changed locally by heating.
6. The data storage medium as claimed in claim 5, characterized in that the polymer film (11) is assigned an absorber which is set up at least partly to absorb a write beam and to emit the generated heat at least partly, locally, to the polymer film (11).
7. A process for producing a data storage medium as

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claimed in claim 1, the polymer film (30) being wound spirally onto a winding body (34; 40) and the winding body (34; 40) subsequently being withdrawn from the central area of the data storage medium (1).

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8. The process as claimed in claim 7 for producing a data storage medium as claimed in claim 3, the polymer film (30) being provided on one side with an adhesion layer (32) which faces outward when the polymer film (30) is wound on the winding body (34; 40).

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9. The use of the data storage medium as claimed in any of claims 1 to 6 in a drive which is attuned to it and comprises a read device (2) and, optionally, a write device (2), the read device (2) and the optional write device (2) being disposed in the recess (36) in the central area of the data storage medium (1) and being moved relative to the data storage medium (1), while the data storage medium (1) is stationary, for the purpose of reading and/or writing information.

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